

Patent claims

1. A device for the storage of solid and/or liquid
and/or gaseous objects, in particular medicines or
5 food, with at least one compartment which contains
at least one object,

characterized

10 in that the filling and/or emptying of the
compartment (71-76) triggers an electrically
readable signal .
2. The device as claimed in claim 1, characterized in
15 that the compartment (71-76) can be mechanically
changed for removal of the object and/or for
filling with the object, and an electrically
readable signal is generated when there is a
mechanical change of the compartment (71-76).
20
3. The device as claimed in claim 2, characterized in
that integrated in the device (7) is:
- an electrical data memory (1; 11-16) with at
least one memory cell (11-16) which is
25 respectively assigned to a compartment (71-76)
and which adopts a different memory value when
there is a mechanical change of the compartment
(71-76) .
- 30 4. The device as claimed in claim 3, characterized in
that also integrated in the device (7) are:
- evaluation electronics (2; 3, 4) for reading from
the data memory (1) .

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5. The device as claimed in claim 3 or 4,
characterized in that the compartment (71-76) forms
part of the memory cell (11-16).
- 5 6. The device as claimed in claim 5, characterized in
that the compartment (71-76) has an interconnect
(104) which is part of the memory cell (11-16), and
the interconnect (104) is destroyed when there is a
mechanical change of the compartment (71-76),
10 whereby the memory cell (11-16) adopts a different
value.
7. The device as claimed in claim 5, characterized in
that the compartment (71-76) forms a capacitance
15 and the capacitance is changed when there is a
mechanical change of the compartment, whereby the
memory cell (11-16) adopts a different value.
8. The device as claimed in claim 5 or 7,
20 characterized in that the compartment (71-76) forms
an inductance and the inductance changes when there
is a mechanical change of the compartment, whereby
the memory cell (11-16) adopts a different value.
- 25 9. The device as claimed in at least one of claims 4
to 8, characterized in that the evaluation
electronics (2, 3) have a shift register (31) for
reading from the data memory (1).
- 30 10. The device as claimed in at least one of claims 4
to 9, characterized in that the evaluation
electronics (2, 4) have two terminal contacts (Vdd,
GROUND) for the voltage and a terminal contact (D)
for serial data transmission.

11. The device as claimed in at least one of claims 4 to 10, characterized in that the evaluation electronics (2) have an interface with or without contacts (4a, 4b) for the data transmission between the evaluation electronics (2) and an external reader (5).
12. The device as claimed in at least one of claims 4 to 11, characterized in that the evaluation electronics (5) have a timer (37) and store the time at which a compartment (71-76) was mechanically changed.
13. The device as claimed in at least one of claims 3 to 12, characterized in that at least one memory cell (11-16) and/or interconnects (104; 8) and/or components of the evaluation electronics (2, 3, 4) are integrated in the substrate of the device (7).
14. The device as claimed in claim 13, characterized in that the data memory (1; 11-16) is formed as an inherent WORM memory integrated in the substrate.
15. The device as claimed in claim 13 or 14, characterized in that the data memory (1; 11-16) and/or interconnects (104, 8) and/or components of the evaluation electronics (2, 3, 4) are at least partly formed as elements of polymer electronics.
16. The device as claimed in at least one of claims 13 to 15, characterized in that the device (7) has an assembly of layers and at least one of the layers of the assembly is used for forming an electrical function.

17. The device as claimed in claim 16, characterized in that active and/or passive electrical components are integrated in the assembly of layers, such as transistors (100), diodes, capacitors, inductors or resistors as well as circuits (2, 3, 4) formed from them.
18. The device as claimed in at least one of claims 13 to 17, characterized in that the substrate (7) has an aluminum layer, which forms the electrical lines (104, 8).
19. The device as claimed in at least one of claims 13 to 17, characterized in that the substrate (7) has printed-on organic compounds, which realize the interconnects.
20. The device as claimed in at least one of claims 13 to 19, characterized in that the device represents or has a pack (7) which forms the compartments (71-76), and the data memory (1) and the evaluation electronics (2, 3, 4) are integrated in the substrate of the pack (7).
21. The device as claimed in claim 20, characterized in that the substrate of the pack (7) serves as a carrier for electrical lines (104, 8) and/or the evaluation electronics (2, 3, 4).
22. The device as claimed in claim 20, characterized in that the evaluation electronics (32, 33, 34, 35) are integrated in a chip with an integrated voltage source (36) that is attached to the pack (7).

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23. The device as claimed in at least one of the preceding claims, characterized in that the device is a blister pack (7).
- 5 24. The device as claimed in claim 23, characterized in that a blister (71-76) forms part of a memory cell (11-16).
- 10 25. The device as claimed in at least one of the preceding claims, characterized in that the device is a food pack.